Tilt 'N Plug® Jr. Interconnect with Display Select User's Guide

Welcome!

We greatly appreciate your purchase of your Tilt 'N Plug Jr. (TNP Jr.) Interconnect Box. We are sure you will find it reliable and simple to use. Superior performance for the right price, backed by solid technical and customer support is what ALTINEX has to offer.

We are committed to providing Signal Management Solutions®
to our customers for the most demanding audiovisual installations at competitive pricing and we welcome you to join the ranks of our many satisfied customers throughout the world.

1. Precautions and Safety Warnings

Please read this manual carefully before using your TNP Jr. Interconnect Box. Keep this manual handy for future reference. These safety instructions are to ensure the long life of your TNP Jr. and to prevent fire and shock hazards. Please read them carefully and heed all warnings.

1.1 General

- Qualified ALTINEX service personnel or their authorized representatives must perform all service as there are high-voltage components inside.

1.2 Installation Precautions

- For best results, place the TNP Jr. in a dry area away from dust.
- To prevent fire or shock, do not expose this unit to water or moisture. Do not place the unit in direct sunlight, near heaters or heat-radiating appliances, or near any liquid. Exposure to direct sunlight, smoke, or steam can harm internal components.
- Handle the TNP Jr. carefully. Dropping or jarring can damage the bezel.
- Never place fingers inside the opening on either side of the unit. This action could cause injury due to sharp edges inside.
- Do not place heavy objects on top of the TNP Jr. Do not use excessive force to push down on the top of the unit.
- Disconnect the power cord to turn off the power. This supplies power to the socket on the pop-up panel. The power outlet should be installed near the equipment and be easily accessible.
- We recommend using wall outlets with a Ground Fault Circuit Interrupter (GFCI) for maximum protection.
- Install all cables according to the instructions found herein. Do not force or pull any cable that is attached to the TNP Jr.

1.3 Cleaning

- Surfaces should be cleaned with a dry cloth. Never use strong detergents or solvents such as alcohol or thinner. Do not use a wet cloth or water to clean the unit.

1.4 FCC Notice

- This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
- This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions found herein, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his expense.
- Any changes or modifications to the unit not expressly approved by ALTINEX, Inc. could void the user's authority to operate the equipment.

2. Installation Procedures

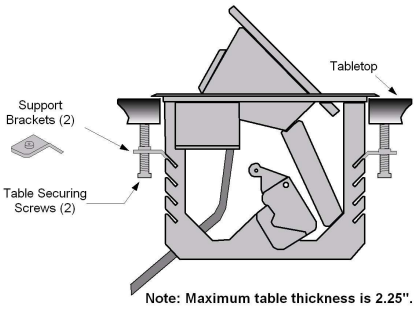
Step 1. Cut an opening into the table's surface. Refer to the ALTINEX website at www.altinex.com for cutout requirements. Always confirm dimensions before cutting!

Step 2. Insert the TNP Jr. into the table cutout from the top of the table feeding the cables first.

Step 3. Place the support brackets under the table between the support mount grooves on the side of the TNP Jr. Attach the brackets to the groove at the desired height and secure them to the bottom of the table using the thumb screws provided.

Step 4. Secure the cables using the cable clamps and screws included; secure the power cord from the bottom of the housing and attach it to the table separately from the signal cables.

Leave enough slack in the service loop to allow for easy opening and closing, but not too much as to cause excess drooping of the service loop.



Step 5. Connect the control (terminal block), audio (3.5 mm), and video (VGA) cables to the input of the UT250-101.

Important: Make sure the audio, video, and control cables are all on the same input number.

Step 6. Connect the remaining cables with their corresponding mates; AC plug to AC outlet, CAT-5 to LAN connection, etc.

Step 7. Once you have applied power and connected the proper cables on the bottom of the unit you may raise the unit. To raise the TNP into position, push down on the front of the top cover; the latching mechanism releases, and the pneumatic spring raises it into position.

Step 8. To lower the unit, push on the top of the TNP Jr. until it locks into place.

Step 9. The TNP Jr. is now operational. If the unit does not raise and lower easily, adjust the service loops under the table.

3. Limited Warranty/Return Policies

Please see the ALTINEX website at www.altinex.com for details on warranty and return policies.

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4. Technical Specifications

Specifications are subject to change. See www.altinex.com for up-to-date information.

Features/Description	TNP221
Audio, Video, Communication	*6 ft (2 m)*
Computer Video	15-pin HD F-M (1)
Stereo Audio	3.5 mm F-M (1)
Network (CAT-6)	RJ-45 F-M (1)
USB	Type A F-M (1)
Pass-Through AC Power	*9-10 ft (2.7-3.0 m)*
110 VAC, 60 Hz, 5 A	NEMA F-M (1)
Agency Approval	
UL Listed	UL Listing is Pending
Accessories Included	
Hardware	-Mounting screws/brackets -Cable clamps/screws

Table 1. TNP221 General

Mechanical	TNP221
Max. Table Thickness	2.25 in (57 mm)
Height, opened	5.5 in (140 mm)
Width	5.4 in (137 mm)
Depth	4.9 in (124 mm)
Finish	Matte Black
Weight (approx.)	3.7 lb (1.7 kg)
Shipping Weight	4.1 lb (1.9 kg)
T°Operating	10℃-35℃
T°Maximum	40°C
Humidity	90% non-condensing

Table 2. TNP221 Mechanical

Electrical (Single outlet panel)	TNP221
Power Rating (pass-through AC power)	120VAC, 60Hz, 5A

Table 3. TNP221 Electrical

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5. About Your Tilt 'N Plug Jr. Interconnect Box with Display Select

- Factory customizable
- Pre-terminated, ready to install
- Low profile, small footprint
- Built-in control

The TNP221 is an audio-visual interface that provides VGA, computer/MP3 audio (3.5mm), network (RJ-45), USB, and a single AC Power (NEMA 15R) connector in a compact tabletop design. Mounted into the bezel of the TNP221 is a two-button display selector. This display selection feature is specifically designed to control the ALTINEX UT250-101 Under Table VGA + Stereo 8 X 4 Auto-switcher making presentations simple and easy to use.

Each TNP221 user can select which display will receive their laptop image. The user can select output 1, or 2, or both displays.

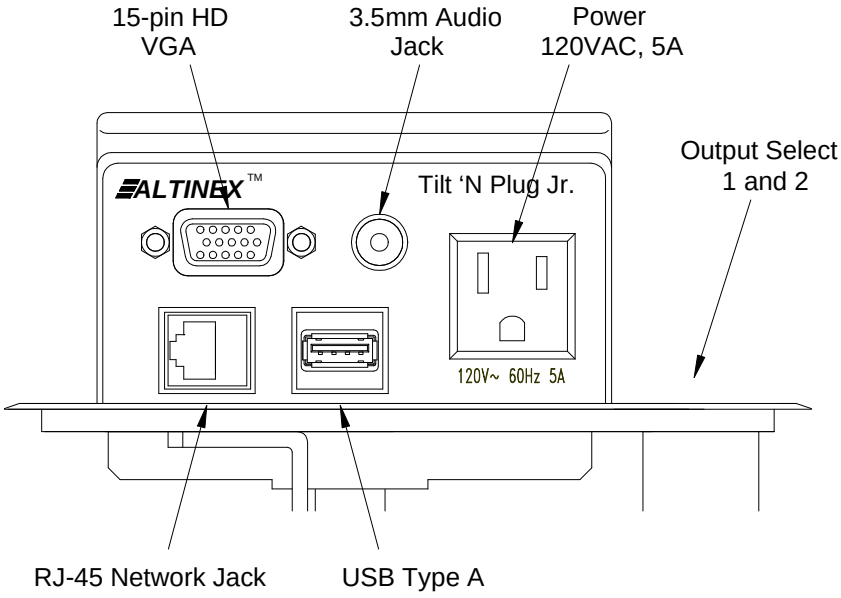
The TNP221 is factory customizable. For example, the RJ-45 connector can be replaced with a second USB connector or one of over 27 other connector options.

The combination of TNP221 with UT250-101 provides an exceptional collaborative presentation environment where up to 8 individuals can present ideas and data using a single set of shared LCD panels or other display devices.

All signals pass through the input plate directly to cables on the underside of the table with no intervening circuitry. The use of additional ALTINEX Signal Management Solutions such as computer video interfaces, distribution amplifiers, and switchers may be desirable.

The input plate of the Tilt 'N Plug Jr. is accessible by pushing down on the top cover. The unit then auto-tilts open with help from an internal pneumatic spring. Once open, the input plate remains securely in place. The input plate is hidden by pressing down on the top cover until the latching mechanism engages. In its closed position, the top panel lies flush with the tabletop, held in place by the latching mechanism.

All Tilt 'N Plug Jr. Signal Management Solutions come with a standard top and bezel offering a high quality matte black finish. Other finishes or special bezel configurations are available upon request. Please contact an ALTINEX representative to discuss custom options.



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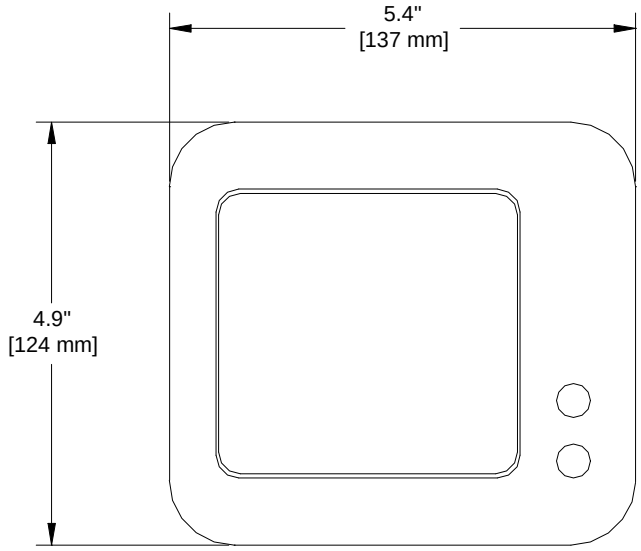
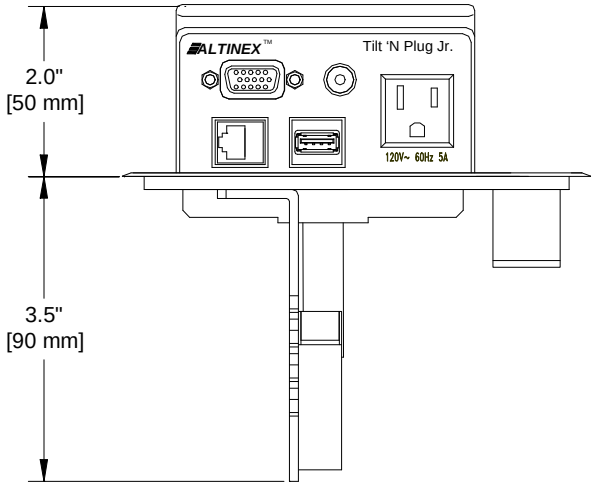
6. Application Diagrams

Diagram 1: TNP221 Dimensions





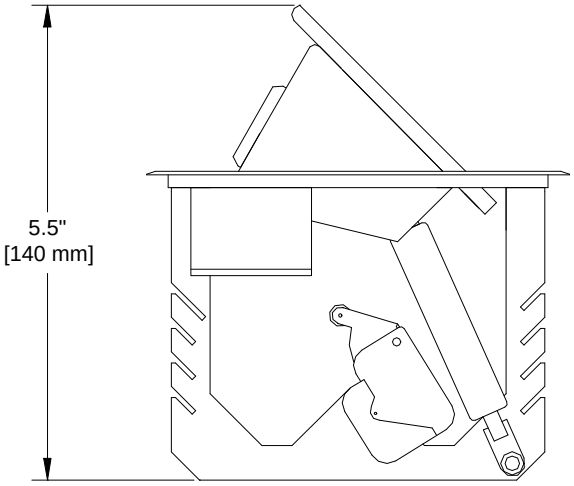


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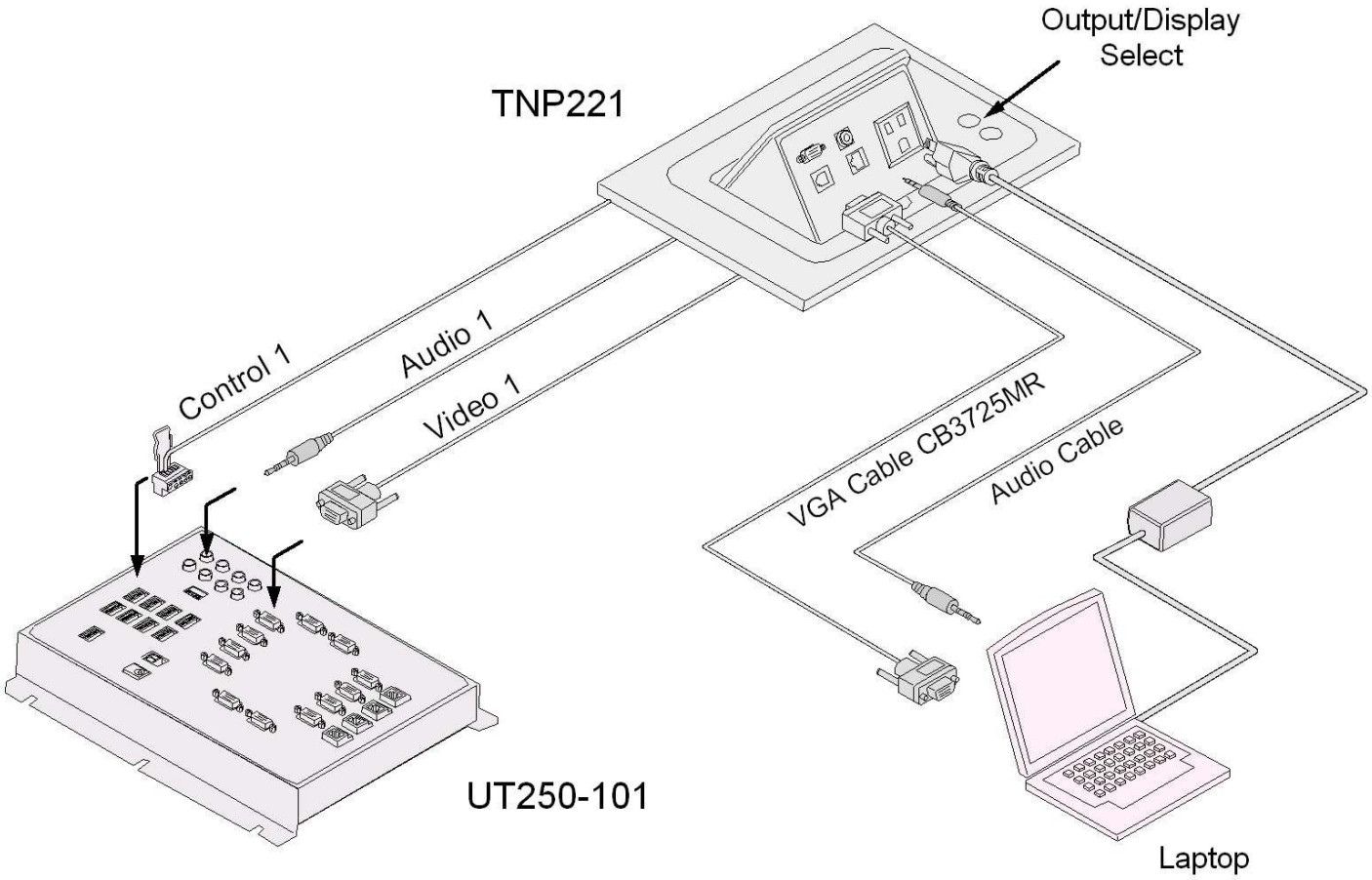
Diagram 2: UT250-101 Connection



IMPORTANT

- Make sure the video, audio, and control lines are all going to the same input number.
  For example, run the new video, audio, and control lines from the TNP221 lines to Video Input 1, Audio Input 1, and Control Input 1.
- Start with Input 1 and work your way down to Input 6.
- Inputs 7 and 8 are typically reserved for use with video conferencing or logo screensavers; however, they can be used as standard inputs if needed.

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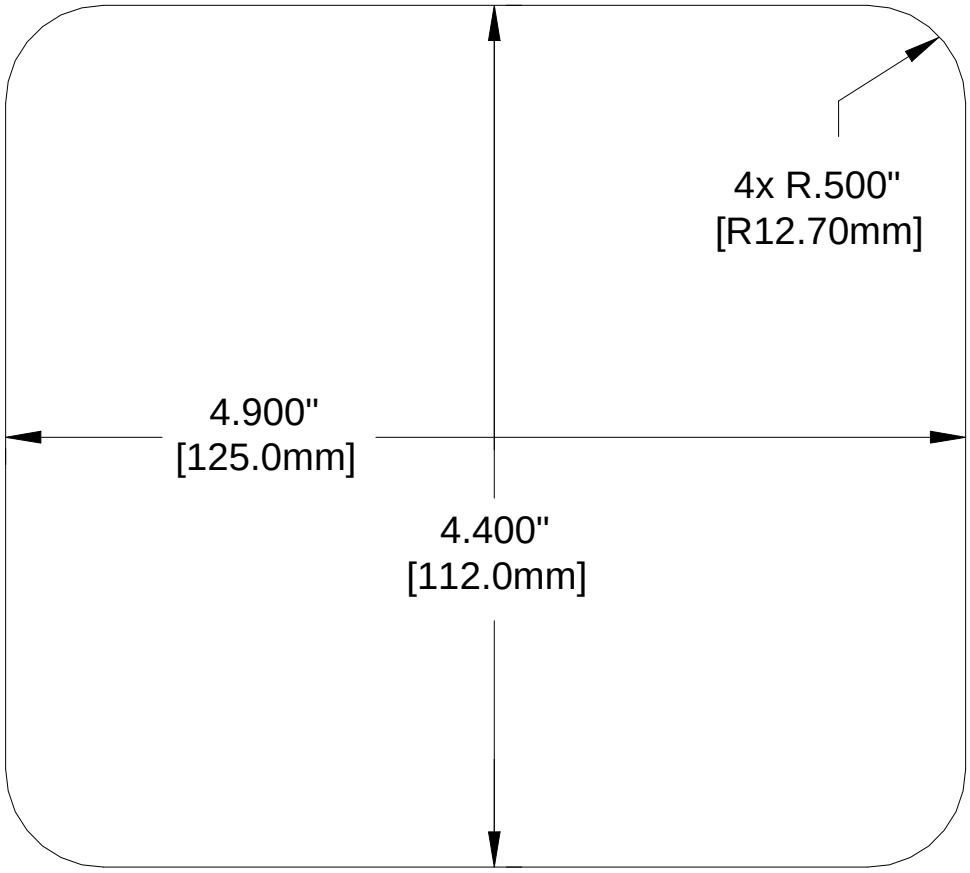
Diagram 3: TNP221 Cutout Dimensions



This drawing is **NOT** to scale.

Refer to the ALTINEX website at www.altinex.com for cutout requirements.
Always confirm dimensions before cutting

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7. Operation

7.1 Opening and Closing the Tilt 'N Plug Jr.

The Tilt 'N Plug Jr. will open easily when the top is pressed down and then released.

When the Tilt 'N Plug Jr. is not in use, simply press the top down until it is level with the surface of the table and then release. The unit will remain hidden until needed again.

7.2 Power/Signal Connections

Connect external devices to the appropriate connector on the Tilt 'N Plug Jr. Remember, the devices plugged into the AC power connectors should not draw more than 5A AC.

7.3 Output/Display Select

The UT250-101 can be configured for various modes of operations. The output select buttons behave differently depending on the precise configuration. In the default configuration, the output select buttons have the following behavior:

TNP221 with No Video Signal Applied:

> Pressing either output select button "wakes up" the system up, turns on the display, and then directs the video from Input 8 to all outputs. Input 8 is typically used for a logo, screensaver, or demonstration video.

TNP221 with Video Signal Applied:

> As soon as the UT250-101 detects a video signal, the system "wakes up", turns on the display, and switches Input 8 to all outputs. Input 8 is typically used for a logo, screensaver, or demonstration video.
>
> Press Output Select 1 button to direct the audio and video from the TNP221 to Outputs 1A and 1B. Press the Output Select 1 button a second time while its LED is on to switch the input from the TNP221 to Input 8 on the UT250-101. Output Select 2 operates the same except it directs the audio and video to Outputs 2A and 2B.

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8. Troubleshooting Guide

Warning: Make sure that no cable or power cord is damaged or pinched. If there has been damage, do not use the Tilt 'N Plug Jr. Please call the ALTINEX Customer Service Department at (714) 990-2300 to have the unit repaired.

The Tilt 'N Plug Jr. supplied was carefully tested and no problems were detected. However, we would like to offer the following suggestions:

Symptom	Resolution
Unit Tilts Up Slowly or Partially	1. If the unit does not rise into position correctly, check the service loops for the signal and power cords on the bottom of the unit. If there is insufficient service loop the unit will not raise properly.
No Display on Projector	1. Check the source and make sure there is a signal present. 2. Make sure the projector has power and is turned on. If the projector power is controlled by the switcher through RS-232 control, make sure the cables are connected and the correct codes have been selected. 3. Make sure the correct input is selected at the TNP221.
Poor Output Image	1. The source resolution may not be compatible with the projector or other display device. Try other resolutions from the source. 2. The source and display may not be compatible. Connect the source directly to the input of the projector or other display device. If the image is poor the devices may be incompatible. 3. Use high-quality cables, especially if making long cable runs.
No Sound	1. Make sure the amplifier or speakers are connected to the speaker output on the switcher. 2. Make sure an input is selected and that the input has audio playing. 3. The output audio plays the audio from the last selected source. Make sure the last selected source has audio playing. 4. Increase the source volume. 5. Some audio sources require amplification to be heard on overhead speakers. Check the audio level and make sure the source level is compatible with the speakers.

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